

REMARKS

Entry of this amendment and reconsideration of this application as so amended is requested. By this amendment Applicant has updated the reference to a pending application in the specification at pages 2 and 3, since such pending application has since issued as a patent. Claims 1-6 remain in the case.

The Examiner maintains the rejection of claims 1-6 under 35 U.S.C. 102(e) as being anticipated by Watson. In response to Applicant's prior arguments the Examiner states that the claimed invention does not limit to a single input video source and contains two different input video sources (**?where?**) as taught by Wilson; that the claimed "up-sampling the slower rate video signal to the desired rate" is anticipated by the up-sampling of the color components (**but not the luminance, i.e., not the video signal as a whole**) in Wilson; and that the claimed adaptive filtering is met by the time filter of Wilson because the filter has a feedback loop to generate the smooth interpolated video signal (**?where?**) based on the equations disclosed (col. 11, line 45 - col. 12, line 10). Applicant respectfully traverses these improper and nonobvious conclusions reached by the Examiner.

In contradistinction to Applicant's claimed invention Watson discloses a method of evaluating the visual quality of processed digital video sequences, and more particularly discloses a digital video quality (DVQ) apparatus that incorporates a model of human visual sensitivity to predict the visibility of artifacts and the visual quality of processed video. The purpose of Wilson is to provide a quality metric for a processed video signal. As shown in Fig. 2 there are two input video sources for the DVQ, an

original video signal R and a processed video signal T corresponding to the original video signal. The two video signals are spatially sampled (30) by a sampler to convert the three color channels of component video to a common spatial resolution, i.e., convert 4:2:2 video to 4:4:4 video. The videos are then manipulated (32, 34) and transformed (36, 38, 40) into blocks of frequency coefficients which become local contrast coefficients. Then a time filter (42) implements a human sensitivity to different spatial frequencies, i.e., the time filter is operating on coefficients and not on any video signal itself, to produce filtered components that in turn are converted to threshold units which correspond to the R and T video signals. Applicant asks the Examiner **where is there any video signal at the output of the time filter?**

Applicant recites in claims 1, 3 and 5 “providing a smooth interpolated video signal at a desired rate from a slower rate video signal”, whereas Wilson teaches providing a quality metric from a comparison of filtered coefficients corresponding to an original and a corresponding processed video signal. Obviously the purposes of the present invention and Wilson are not the same. Applicant recites “up-sampling the slower rate video signal to the desired rate”, whereas Wilson teaches spatial sampling of the different video components of the input video signal so that all of the components have a common spatial resolution which is not the same as up-sampling the video signal as a whole to the desired rate. Finally Applicant recites “adaptively filtering the up-sampled slower rate video signal . . . to produce the smooth interpolated video signal”, whereas Wilson time filters contrast coefficients as opposed to a video signal and produces filtered frequency components as opposed to a smoothed interpolated video signal. Therefore there is nothing in Wilson that corresponds to anything recited


by Applicant in these claims. Additionally claims 2 and 6 recite "restoring a direct current level for the smooth interpolated video signal", whereas Wilson discloses computing a set of contrast thresholds for each color and DCT frequency which is not at all the same as restoring a DC level to a video signal. Thus claims 1-6 are deemed to be allowable as being neither anticipated nor rendered obvious to one of ordinary skill in the art by Wilson.

In view of the foregoing argument entry of this amendment and allowance of claims 1-6 are urged, and such action and the issuance of this case are requested. Should the Examiner maintain the rejection of these claims, entry of this amendment is requested as placing the case in better form for appeal.

Respectfully submitted,

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